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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,004	11/16/2001	Tse-Hua Lan	US 010611	2589

24737 7590 11/30/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER
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SEFI, BEHROOZ M

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/996,004

Applicant(s)

LAN ET AL.

Examiner

Behrooz Senfi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7, 10-12, 14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) 1-6, 8-9, 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7, 10-12, 14-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's arguments, see remarks, filed 9/11/2006, with respect to the rejection(s) of claim(s) 7, 10 – 12 and 14 - 15 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Wu (US 2003/0161404) and Hoang (US 6,295,089).

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 2003/0161404) in view of Hoang (US 6,295,089).

Regarding claim 7, Wu '404 teaches, method for decoding efficiency of an encoded data video signal employing an MPEG video (i.e. fig. 1), having "VLD and IQ and IDCT and MC and complexity selector" (i.e. fig. 1, VLD, IQ, IDCT and MC), and "receiving a compressed video data stream having a MV associated therewith at the VLD and producing decoded data therefrom" (i.e. fig. 1, VLD) and "determining the type of motion vectors from the decoded data" (i.e. fig. 1, S3) as being one selected from the group consisting of; "a quarter-pel MV, a half-pel MV, and a fractional-pel MV", which place the existing paragraph into a "Markush format", which only require meeting one of

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the “a quarter-pel MV, a half-pel MV, and a fractional-pel MV” features in the group, therefore (see figs. 11 and 23, also page 5, paragraph 0101) and “dequantizing the decoded data” (i.e. fig. 1, IQ), and “employing the IDCT for transforming the dequantized, decoded data from a frequency domain to a spatial domain to produce different data” (i.e. fig. 1, IDCT) and “employing MC” (i.e. fig. 1, MC) and “full-pix motion compensation” takes place in (i.e. fig. 1, RCMC) and “combining the reference data and the difference data to produce motion compensated picture” (i.e. fig. 1, 8).

Wu '404 teaches, method for decoding efficiency of an encoded data video signal employing an MPEG video and further (i.e. col. 7, lines 8 – 14) teaches, the resolution converting ME down-samples the coded moving picture signal and further indicates that, in either case the motion vectors output from the resolution-converting motion estimator have full resolution. But is silent in regards to explicitly mention, converting the motion vector to a full motion vector in the decoding side.

Hoang '089 in the same field (i.e. fig. 2, element 22, col. 4, lines 1 – 35, col. 8, lines 45 – 63) teaches converting/up-sampling motion vector to a full motion vector in the decoding side.

In view of the above, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to improve the resolution conversion and compression process of Wu in accordance with the teaching of Hoang (i.e. col. 3, lines 40 – 45) by converting/up-sampling motion vector to a full motion vector in the decoding side, for the purpose of improving the resolution of the video presentation, as suggested by Hoang (col. 3, lines 44 – 46).

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Regarding claim 12, the limitations claimed have been analyzed and rejected with respect to claim 7 above.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10, 11 and 14 - 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 2003/0161404) in view of Hoang (US 6,295,089) and further in view of Zhong et al (US 2002/0163969).

Regarding claim 10, combination of Wu '404 and Hoang '089 teach, "a method for decoding efficiency of an encoded data video signal employing an MPEG video, having VLD and IQ and IDCT and MC and complexity selector and receiving a compressed video data stream producing a full-pel video presentation" as discussed earlier with respect to claim 7 above.

Wu '404 is silent in regards to, "rounding the odd number MV to the nearest even number".

Zhong '969 in the same field (i.e. page 2, paragraphs 0027 and 0036 and page 3, paragraphs 0038 and 0040) teaches, round the odd number MV to the nearest even integer number.

In view of the above, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Wu's coding process in accordance with the teaching of Zhong (i.e. page 2, paragraphs 0027 and 0036 and page 3, paragraphs 0038 and 0040) to round up the motion vector to the nearest even integer number. Doing so would improve the coding efficiency but scarifies image quality.

Regarding claims 11 and 15, Wu '404, Hoang '089 and Zhong '969 teaches the limitation "one of p-frame, B-frame and a combination of P and B frames" as claimed (Hoang, col. 4, lines 26 – 35, col. 9, lines 4 – 7).

Regarding claim 14, the limitations claimed have been analyzed and rejected with respect to claim 10 above.

#### **Contact**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(571) 272-7339**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mehrdad Dastouri** can be reached on **(571) 272-7418**.

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, Va. 22314.

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is **(571) 272-6000**,

**Or faxed to:**


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**(571) 273-8300**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

B.M.S.

11/22/2006



**TUNG VO**  
**PRIMARY EXAMINER**